



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/516,816	01/18/2005	Sang-kyu Park	CU-3993 WWP	5274
26530	7590	09/25/2007		
LADAS & PARRY LLP 224 SOUTH MICHIGAN AVENUE SUITE 1600 CHICAGO, IL 60604			EXAMINER RALIS, STEPHEN J	
			ART UNIT 3742	PAPER NUMBER
			MAIL DATE 09/25/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/516,816

Applicant(s)

PARK, SANG-KYU

Examiner

Stephen J. Ralis

Art Unit

3742

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 06 December 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 December 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 2/22/2005
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Specification*

1. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

In the instant case, the abstract is over 200 words. Appropriate correction is required

### *Claim Rejections - 35 USC § 112*

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 1 appears to be incomplete for omitting essential structural cooperative relationships between the temperature-sensitive layers and the pattern layers, and other structures such as a message member, various heights of the pattern layers. It is noted that there is a recitation "a temperature-sensitive material filling the pattern layers of the indicating unit". It is indefinite to how the temperature-sensitive material can fill the pattern layer, since no definite configuration of the pattern layers has been recited. Such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claim 1 is rejected under 35 U.S.C. 102(a) as being anticipated by Kazumasa (Japanese Publication No. 2002 059959 A) (Note: Machine assisted translation provided via JPO website PAJ).

Kazumasa discloses a cooking state and completion indicator of instant foods (Title), comprising: an indicating unit (time passing display body 3) combined with a cover or a sealing member (upper lid 2) of a disposable vessel for containing the instant foods (cup noodle container 1), and having therein a plurality of pattern layers

Art Unit: 3742

(concentric circular patterns a, b, c, d) with various heights (paragraphs 8-11); a temperature-sensitive material filling the pattern layers of the indicating unit (Solution section); and a message member positioned under the pattern layers (printing layer 6).

With respect to the limitation of and having a plurality of pattern layers with various heights and a temperature-sensitive material filling the pattern layers of the indicating unit, Kazumasa discloses the graduation of discoloration time amount trace being a display object which carried out phase discoloration time amount trace (i.e. a-d in Figures 2D-2I) by changing the thickness of the heat sensitive materials (paragraph 11). Kazumasa discloses changing the thickness of the heat sensitive materials or thickness of the pattern layer to attain the desired pattern (see Figures 3L). Therefore, Kazumasa fully meets "an indicating unit combined with a cover or a sealing member of a disposable vessel for containing the instant foods, and having therein a plurality of pattern layers with various heights; a temperature-sensitive material filling the pattern layers of the indicating unit" given its broadest reasonable interpretation.

As the reference meets all material limitations of the claims at hand, the reference is anticipatory.

6. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Phillips (U.S. Patent No. 4,933,525).

Phillips discloses a cooking state and completion indicator of instant foods (see Figure 3), comprising: an indicating unit (indicator 26)) combined with a cover or a sealing member (closure lid 24) of a disposable vessel for containing the instant foods

Art Unit: 3742

(container base 22), and having therein a plurality of pattern layers with various heights (column 5, line 46 – column 6, line 59; see Figures 3-5); a temperature-sensitive material filling the pattern layers of the indicating unit (liquid crystal film 20); and a message member positioned under the pattern layers (contrasting background; column 8, claim 16).

With respect to the limitation of and having a plurality of pattern layers with various heights and a temperature-sensitive material filling the pattern layers of the indicating unit, Phillips discloses the pattern having various heights from the left to right of the container with respect to the sides of the cover and the various heights being filled with liquid crystal film (20) (see Figures 3-5). Therefore, Phillips fully meets "an indicating unit combined with a cover or a sealing member of a disposable vessel for containing the instant foods, and having therein a plurality of pattern layers with various heights; a temperature-sensitive material filling the pattern layers of the indicating unit" given its broadest reasonable interpretation.

As the reference meets all material limitations of the claims at hand, the reference is anticipatory.

### ***Prior Art***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent No. 6,248,981 to Check is a teaching of an indicator for the cooking state of an instant food item.

Art Unit: 3742

U.S. Patent No. 4,786,773 to Keefer is another teaching of an indicator for the cooking state of an instant food item.

U.S. Patent No. 6,435,128 to Qiu et al. is a teaching of a time-temperature indicator for the cooking state of an instant food item.

U.S. Patent No. 6,244,208 to Qiu et al. is a teaching of a time-temperature indicator for the cooking state of an instant food item.

U.S. Patent No. 5,797,344 to Ramsey et al. is a teaching of an on-demand useful life indicator.

U.S. Patent No. 5,805,245 to Davis is a teaching of a multilayered thermochronic display apparatus.

U.S. Patent No. 5,786,578 to Christy et al. is a teaching of a temperature indicator for a microwave container.

U.S. Patent No. 5,667,303 to Arens et al. is a teaching of a time-temperature indicator device.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen J. Ralis whose telephone number is 571-272-6227. The examiner can normally be reached on Monday - Friday, 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tu Hoang can be reached on 571-272-4780. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

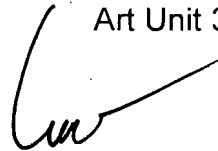
Art Unit: 3742

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Stephen J Ralis  
Examiner  
Art Unit 3742

SJR  
September 19, 2007



**TU BA HOANG**  
**SUPERVISORY PATENT EXAMINER**